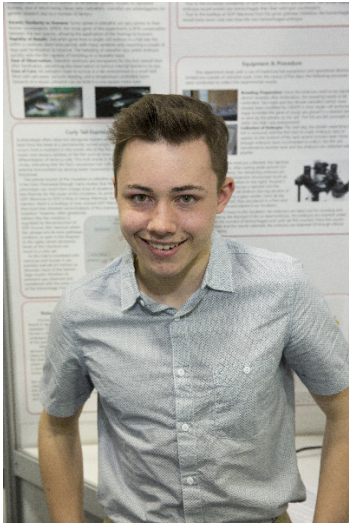


## CWSF 2019 - Fredericton, New Brunswick



### Callum Derry

#### Using Fucose to Reduce Hemorrhage Rates in Zebrafish Embryos

**Challenge:** Health

**Category:** Senior

**Region:** Eastern Newfoundland

**City:** St. John's, NL

**School:** Holy Heart High School

**Abstract:** This project examined the relationship between fucose, a sugar, and the percentage of strokes present in zebrafish embryos. The experiment models strokes in humans, and was designed in hopes of finding a diagnosis tool or treatment for strokes or elevated stroke risk. As many Canadians suffer from strokes each year, this project has high implications for saving lives in our country.

#### Biography

Hello! I'm Callum Derry, and I'm a Grade 11 student from Holy Heart High School in St. John's, Newfoundland. I'm pursuing an IB Diploma, and am hoping to become an engineer after finishing post-secondary. This year marks the first time I've been a CWSF Finalist. My project on zebrafish and strokes stemmed from a number of personal interests. A close family member of mine suffered from a stroke recently, and upon researching the condition, I found that research in this area is limited compared to the extensive studies of some cancers and other diseases. My hope to shed light on this issue was aided by my uncle, Brent Derry, who works as a genetic researcher at SickKids in Toronto. He taught me the basics on genetic research, and I'm hoping that I can continue to use his experience to further my research done for the fair. Outside of school and research, I enjoy designing maps for video games, building scale models, playing hockey and the guitar, and spending time with my family.

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